

WHAT IS CLAIMED IS:

1. A hand-held device to control motion of a pointer on a display screen, the device comprising:

a shell capable of being held by a hand;

5 a pressure sensor having pressure-sensitive zones that are each associated with a direction of motion of the pointer on the display screen; and

an actuator positioned to be manipulated by a digit of the hand holding the shell, and that when manipulated presses against at least one of the pressure-sensitive zones to cause the pointer to move on the display screen in a direction determined by the direction of motion
10 associated with the at least one of the pressure-sensitive zones against which the actuator is pressed.

2. The hand-held device of claim 1, wherein the actuator, when manipulated, presses against at least one of the pressure-sensitive zones to further cause the pointer to move on the
15 display screen with a speed determined by an amount of pressure with which the actuator is pressed against the at least one of the pressure-sensitive zones.

3. The hand-held device of claim 1, wherein each of the pressure-sensitive zones, when operable, generate a voltage signal according to a relative amount of pressure applied to each
20 of the pressure-sensitive zones.

4. The hand-held device of claim 1, wherein the device further includes a click button capable of being manipulated by a second digit of the hand holding the shell.

25 5. The hand-held device of claim 4, wherein the click button has a toggle switch for left- and right- click operations.

6. The hand-held device of claim 1, wherein the pressure sensor has at least four pressure-sensitive zones that are each associated with a direction of motion of the pointer on
30 the display screen, and wherein the actuator contains at least four protrusions that each can press against one of the pressure-sensitive zones when the actuator is manipulated to cause

the pointer to move on the display screen in a direction determined by the direction of motion associated with the pressure-sensitive zones against which the protrusions are pressed.

7. The hand-held device of claim 6, wherein the pressure sensor has at least eight pressure-sensitive zones that are each associated with a direction of motion of the pointer on the display screen, and wherein the actuator contains at least eight protrusions that each can press against one of the pressure-sensitive zones when the actuator is manipulated to cause the pointer to move on the display screen in a direction determined by the direction of motion associated with the pressure-sensitive zones against which the protrusions are pressed.

8. The hand-held device of claim 1, wherein the shell is a soft, flexible shell.

9. The hand-held device of claim 1, wherein a top surface of the actuator is substantially planar.

10. An actuator usable within a pointing device to control a pointer on a display screen, the actuator comprising:

a top surface capable of being manipulated by a digit of a hand to cause the actuator to swivel about a pivot point; and

a bottom surface having at least four protrusions spaced apart in a polygonal pattern, wherein each protrusion is capable of being pressed against a pressure zone on a pressure-sensitive film to cause motion of the pointer on the display screen when the actuator swivels about the pivot point.

11. The actuator of claim 10, wherein each protrusion is capable of being pressed against a pressure zone on a pressure-sensitive film to cause the pointer to move on the display screen in a direction determined by a direction of motion associated with the pressure zones against which the protrusions are pressed.

12. The actuator of claim 11, wherein each protrusion is capable of being pressed against a pressure zone on a pressure-sensitive film to cause the pointer to move on the display

screen with a speed determined by an amount of pressure with which the protrusions are pressed against the pressure zones.

13. The actuator of claim 10, wherein the protrusions are equally spaced apart in a polygonal pattern.

14. The actuator of claim 10, wherein the protrusions include at least eight protrusions.

15. The actuator of claim 10, wherein the top surface is a substantially planar surface.

16. A method for controlling motion of a pointer on a display screen through operation of a pointing device, the method comprising:

detecting an amount of pressure applied to pressure-sensitive zones on a pressure sensor when at least one protrusion of an actuator presses against at least one of the pressure-sensitive zones, the pressure sensor and the actuator being contained within the pointing device;

determining a direction of motion based on the amount of pressure applied to each of the pressure-sensitive zones using a vector calculation; and

sending information relating to the direction of motion to a computing device to cause motion of the pointer on the display screen.

17. The method of claim 16, wherein the method further comprises:

determining a speed of motion based on the amount of pressure applied to each of the pressure-sensitive zones; and

sending information relating to the speed of motion to the computing device.

18. The method of claim 16, wherein the method further comprises:

detecting input from a click button contained within the pointing device;

determining a click operation based on the input from the click button; and

sending information relating to the click operation to the computing device.